

Please amend claim 10 as follows:

B1 10. (AMENDED) An isolated and purified nucleic acid segment comprising a nucleic acid sequence substantially homologous to the gene sequence in SEQ ID NOS:54 and 56.

Please add new claims 11-30 as follows:

11. (NEW) The nucleic acid segment of Claim 10, further defined as encoding at least one functionally active F-box domain, wherein the segment:

(a) encodes the amino acid sequence of SEQ ID NOS:53 and 55; or

B2 (b) is capable of hybridizing to the nucleotide sequence of SEQ ID NOS:54 and 56 under standard hybridization conditions.

12. (NEW) The nucleic acid segment of Claim 11, defined further as consisting essentially of the nucleotide sequence of SEQ ID NOS:54 and 56.

13. (NEW) The nucleic acid segment of Claim 10, which comprises the sequence of SEQ ID NO:54 and 56.

14. (NEW) The nucleic acid segment of Claim 10, wherein said gene sequence further comprises 5' and 3' flanking regions.

15. (NEW) The nucleic acid segment of Claim 10, wherein said gene further comprises intervening sequences.

16. (NEW) The nucleic acid segment of Claim 10, wherein the nucleic acid segment expresses a protein that comprises at least one functionally active F-box domain that forms a complex with an F-box domain target selected from the group consisting of cyclins, cyclin dependent kinases, Skp1 and Ikb.

17. (NEW) The nucleic acid segment of Claim 16, wherein the complex comprises a target for ubiquitination.

18. (NEW) A vector comprising a nucleic acid segment, wherein the nucleic acid segment is substantially homologous to a portion of the coding strand of the gene sequence set forth in SEQ ID NOS:54 and 56.

19. (NEW) A recombinant DNA vector comprising the nucleic acid segment of Claim 10.

20. (NEW) A host cell comprising the recombinant DNA vector of Claim 19.

21. (NEW) The host cell of Claim 20 defined further as a prokaryotic cell.

22. (NEW) The recombinant host cell of Claim 20 defined further as a eukaryotic cell.

B2 23. (NEW) A nucleic acid segment comprising at least a 14 nucleotide sequence corresponding to, or complementary to, the nucleic acid sequence of SEQ ID NOS:54 and 56.

24. (NEW) A purified protein encoded by an oligonucleotide comprising a nucleic acid sequence substantially homologous to the coding strand of the gene sequence set forth in SEQ ID NOS:54 and 56.

25. (NEW) The purified protein of Claim 24, wherein said protein comprises at least one functionally active F-Box domain.

26. (NEW) The purified protein of Claim 24, wherein said protein is the protein of SEQ ID NOS:53 and 55.

27. (NEW) A fusion protein comprising a portion of the gene sequence of Claim 10 and a non-functionally active F-Box domain protein sequence.

28. (NEW) The fusion protein of Claim 27, wherein the protein with a non-functionally active F-Box domain is a mammalian protein.

29. (NEW) The fusion protein of Claim 27, wherein the protein with a non-functionally active F-Box domain is a steroid receptor protein.